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ABSTRACT

This is a review of research relating to the attributes of portrayals which play a role in affecting aggressive behavior. The effects of portrayal can occur at any of three successive stages: acquisition, disinhibition/stimulation/arousal, performance. The older the individual, the more likely the influence is to be in all three stages of influence. Yet, much research with young viewers fails to consider the latter stages of influence and perhaps the larger effects. Evidence which does consider such stages suggests: (1) portrayals of violence can lead to aggressive performance; (2) repeated exposure to portrayals of violence may increase the likelihood of aggressive performance; (3) aggressive performance is not dependent on a typical frustration; (4) whether aggressive effects may also mean antisocial effects remains to be shown; (5) factors in a portrayal which increase the likelihood of aggression suggest that aggression is justified, socially acceptable, motivated by malice, or pays off; (6) exposure to portrayals of violence may desensitize young persons to responding to violence in their environments. Related effects of aggressive portrayals on two other behaviors (rule violation and self-harm) are summarized. (Author/DAG)

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TELEVISION PORTRAYALS AND AGGRESSIVE BEHAVIOR

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The extensive attention given in recent years to the question of whether or not television violence should be judged, on the basis of scientific evidence, a cause of aggressiveness on the part of young viewers has obscured what the same body of evidence has to say about a different but not less important question. This is the question of what the evidence suggests about the attributes of portrayals that increase or decrease the likelihood of such an effect.

The consequence has been to direct the attention of those who might take practical ameliorative action away from valuable knowledge. The result has been to reduce sharply the social usefulness of a sizable body of social and behavioral science.

The intent here is not to weigh the typicality with which television contributes to aggressive behavior. The process is complex, and the combination of factors in many, many situations would certainly lead us to expect no such effect. Instead, we will cast the evidence in a framework that emphasizes what the evidence suggests about the specific attributes of portrayals which play a positive or negative role in affecting aggressive behavior.

The hope is to draw the attention of those who might take practical ameliorative action to the guidance that social and behavioral science can provide. In particular, this group includes those in the broadcasting industry who are directly responsible for the television that children view--those who develop, produce, and schedule programming, and those in the broadcast standards departments at the three networks who pass on its acceptability.

The Basis For Concern

The most plausible interpretation of the evidence is that the viewing of violent television portrayals increases to some extent and degree aggressiveness on the part of young viewers (Bandura,

1973; Berkowitz, 1962; Bogart, 1972; Chaffee, 1972; Comstock, 1972; Goranson, 1970; Krull and Watt, 1973; Liebert, Neale and Davidson, 1973; Shirley, 1973; Singer, 1971; Surgeon General's Scientific Advisory Committee on Television and Social Behavior, 1972). This conclusion does not derive from a single, compelling study but from the consistency of results across a large number of studies varying in method and character.

For those who accept this view, any evidence on the factors responsible obviously would hold high interest. However, it should be emphasized that an interest in what the evidence has to say about the factors responsible does *not* require acceptance of the causal hypothesis. This may not be immediately obvious, but it is nonetheless true. The reason is that we are here dealing with evidence about possible harm, and even though the causal evidence may not yet reach a particular threshold for acceptance, one might nevertheless want to reduce the possibility of negative impact should skepticism be in error, either by acting in a precautionary way or by being better prepared to do so should the threshold for acceptance be crossed.

Three Concepts

The evidence on the factors which play a role in any contribution of violent portrayals to aggressive behavior is sizable, although very far from comprehensive in terms of the many questions that could and should be addressed. We will begin with three concepts which will help clarify the underlying process behind any effect on aggressiveness. They are:

1. Acquisition.
2. Disinhibition/stimulation/arousal.*
3. Performance.

* Conceptually, disinhibition, stimulation, and arousal can be differentiated. Disinhibition attributes an effect to a reduction in the factors, such as moral belief or fear of painful outcome, which restrain behavioral display. Stimulation attributes an effect to an increase in the factors, such as desire for success, which encourage such display. Arousal attributes an effect to one such stimulating

Acquisition refers to an increase in the capacity to perform an act. By some process, the individual has "acquired" new behavioral capability. Disinhibition/stimulation/arousal refers to an increase in the likelihood of performing some acquired act. This increase is presumably the result of cognitive or affective change attributable to some experience or receipt of some communication bearing on the act in question. Performance refers to the actual carrying out of an act.

We are naturally primarily interested in performance--the carrying out by the young viewer of an antisocial act as the result of viewing a television portrayal. However, performance should be thought of as a function of acquisition and of disinhibition/stimulation/arousal. Without one or the other, a portrayal will have no effect on performance.

One way in which acquisition can occur is by observing another person perform the behavior in question, and the effect of observing the behavior on television or film is similar to observing it live (Bandura, 1973). Acquisition is not limited to the case in which a young child copies in precise mimicry some behavior he has only recently observed. It is a much more subtle and pervasive phenomenon. Acquisition can occur without immediate performance (Bandura, 1965), and has implications for the behavior effects of television on older as well as younger youths.

Now in research on television and aggressive behavior, there are two kinds of dependent variables, or "effects":

1. Imitative antisocial behavior, which parallels what recently has been observed on the screen.
2. Non-imitative antisocial behavior, which is different in kind from what recently has been observed on the screen.

factor, affective arousal physiologically measured. Because all three play the same role as an antecedent to behavioral display, and because they are difficult to differentiate in practice (except for arousal, which can at least be said with certainty to be present when there is confirmation by physiological measurement), they are treated as a single concept in the present formulation.

In both cases, acquisition must have occurred or there will be no performance. In the first case, acquisition is attributable to the recently viewed television. In the second case, it may be traceable to a variety of sources including, because acquisition may occur without immediate performance, some previously viewed television which at the time appeared to have no effect at all.

It is probably infrequent--although not unknown--for a very young child to emulate to some degree a complex sequence of behavior observed on television or film, such as carrying out some sort of caper. To the extent that such effects occur, however, they are undoubtedly more frequent for older youths who have already acquired all or most of the various behavioral components which must be sequentially performed. The younger the viewer, the more likely is it that an effect would be limited to the acquisition of a delimited specific act, such as the way to use a particular weapon, or to some refinement or elaboration of an already-acquired act. However, the expansion and shaping of an individual's repertoire of behavior by observational learning is probably not confined to the very young (Bandura, 1973).

We have discussed the behavioral influence of television portrayals in terms of three concepts in order to clarify the underlying processes and to emphasize that absence of immediate effect does not insure that there is no effect. In practical terms, it is sufficient to review what is known about *performance* of an aggressive act subsequent to viewing television violence. This is not a procedure that would be optimal for scientific purposes because the theoretical formulations which guide the research in imitative and non-imitative aggressive effects of exposure to television violence are somewhat different. However, when we are primarily concerned with the effects of the medium, we can ignore these differences.

Our perspective should now be clear. An exclusive focus on the imitation by young viewers of recently observed portrayals is rejected because it would foreclose consideration of some of the ways television may contribute to aggressiveness. The focus

is on performance because it provides an inclusive view of the full range of factors on which increased aggression may be contingent:

1. Effects attributable to the imitation of recently viewed television.
2. Effects attributable to the evocation by television on other stimuli of behavior previously acquired from television.
3. Effects attributable to the evocation by television of behavior acquired from sources other than television.

Character of the Evidence

The evidence regarding conditions on which acquisition, disinhibition/stimulation/arousal, and performance are contingent comes almost exclusively from laboratory-type studies, which are open to a number of criticisms. Typically, the surroundings are artificial; the "television" is brief, usually shown out of context, and often something quite unlike anything ever seen on a home screen; and, the measurement situation is usually without any factors which might inhibit performance, such as reprisal or scolding. In many experiments on imitative effects, the target for the aggression is an object actually designed for playful violence, the Bobo doll. In the experiments on non-imitative effects, the operationalization of aggression typically is an act, such as the delivery of electric shocks to another person as feedback on the latter's performance on some task, that receives tacit approval in the requirement that shock follow a performance error, that is undertaken in behalf of a socially-valued outcome (increased achievement), and that is in mode if not in motive unlike behavior in which persons normally engage. Nevertheless, the experiment is the best means for exploring contingent factors because it tests causal relationships in the most rigorous and sensitive way possible. In the present case, we are encouraged to believe that the experiments have real-life implications because non-laboratory evidence presents us with positive correlations between real-life violence viewing and real-life aggression (McLeod, Atkin, and Chaffee, 1972a, 1972b; Chaffee, 1972; Eron, 1963, Eron et al., 1972).

Warning

Before examining the evidence, a caveat is in order. It has been argued that the evidence available merits careful attention. It should also be understood that the evidence on any single issue is very far from that state of inferential grace known as certitude. In most instances, there are only one or a few studies to turn to, which increases the risk that findings may be artifacts of the population studied, the measuring instruments, the design, or something else. Our review leads not to conclusions beyond reversibility, but to hypotheses for which there is some empirical support.

What the Evidence Suggests

The scientific evidence suggests that (citations are illustrative, not exhaustive):

1. *Cartoon as well as live portrayals of violence can lead to aggressive performance on the part of the viewer.* When cartoon and live portrayals of violent incidents were compared, the effect on aggressive performance of the live portrayal was greater than that of the cartoon, but *both* cartoon and live portrayal increased the likelihood of aggressive performance (Bandura, Ross, and Ross, 1963a). Saturday morning cartoons shown in entirety have also been demonstrated to increase the likelihood of aggressive performance (Ellis and Sekyra, 1972; Steuer, Applefield, and Smith, 1971). Non-cartoon portrayals, of course have been demonstrated to increase aggressive performance in a variety of circumstances (Bandura, Ross, and Ross, 1961; Geen and Berkowitz, 1967).

2. *Repeated exposure to cartoon and live portrayals of violence does not eliminate the possibility that new exposure will increase the likelihood of aggressive performance.* The subjects in every experiment have a history of typical exposure to television. As a result, every demonstration of increased aggressive performance attributable to the viewing of television violence is also a demonstration of the absence of an immunizing effect of extensive prior exposure to violent portrayals.

3. *Aggressive performance is not dependent on atypical frustration, although frustration facilitates aggressive performance.* Although in many television violence experiments the subjects are frustrated prior to exposure to the television stimuli, frustration should not be looked upon as invalidating the results. First of all, the frustration is quite like the ordinary frustrations of life (prohibition from playing with a toy; a mild insult). Second, many experiments demonstrate effects without employing frustration. The purpose of the frustration, of course, is to heighten aggressive drive to increase the likelihood of detecting any differences in aggressiveness attributable to the various experimental manipulations.

4. *Although the "effect" in some experiments may be aggressive but not antisocial play, implications in regard to the contribution of television violence to antisocial aggression remain.* It is often argued that when the "effect" is a form of play, such as aggressiveness toward a Bobo doll, real aggressiveness is not involved. Reflection leads to the surprising conclusion that one may accept this argument without altering the basic import of the evidence, which is that under certain circumstances exposure to television violence can increase the likelihood of aggressive performance by young persons. There are several reasons. One is that one issue is not aggressiveness *per se*, but the acquisition of acts which might later be employed in aggression. The test situation may not involve "real" aggression, but it does demonstrate that aggressive behavior has been acquired. The analogue is the training in non-violent circumstances for later violence, common in the military, law enforcement agencies and, some would say, certain sports. A second reason is that some of these same experiments also measure effects less ambiguous in regard to aggressive character, and the results run parallel to those for the Bobo doll assaults. A third reason is that a sizable number of additional experiments in which no Bobo doll is involved also measure effects less ambiguous in aggressive character, and the results are parallel to those of the Bobo experiments: exposure to television violence increases the display of whatever is being measured as aggressiveness.

5. *In ordinary language, the factors in a portrayal which increase the likelihood of aggressive performance are the suggestion that aggression is justified, socially acceptable, motivated by malice, or pays off; a realistic depiction; highly exciting material; of the presentation of conditions similar to those experienced by the young viewer, including a perpetrator similar to the viewer and circumstances like those of his environment, such as a target, implements, or other cues resembling those of the real-life milieu. In detail:*

- a. Reward or lack of punishment in the portrayal for the perpetrator increases the likelihood of aggressive performance, while punishment decreases it (Rosekrans and Hartup, 1967; Bandura, 1965; Bandura, Ross, and Ross, 1963b).
- b. Presentation of the portrayed violence as justified increases the likelihood of aggressive performance (Berkowitz and Rawlings, 1963; Meyer, 1972).
- c. Cues in the violent portrayal which match cues in the real life environment, such as similarity of name of victim, increase the likelihood of aggressive performance (Berkowitz and Geen, 1966).
- d. Depiction of the perpetrator in a violent portrayal as similar to the viewer increases the likelihood of aggressive performance (Rosekrans, 1967).
- e. The depiction of the portrayal of violent interaction as aggressive and motivated by intent to injure increases the likelihood of aggressive performance (Berkowitz and Alioto, 1973; Geen and Stonner, 1972).
- f. The depiction of the portrayal of violent interaction as real rather than fictional increases the likelihood of aggressive performance (Feshbach, 1972).
- g. The presentation of highly exciting material of any kind increases the likelihood of aggressive performance (Zillmann, 1971; Tannenbaum and Zillmann, 1975).
- h. When the actions of the perpetrators of violence in a portrayal are not criticized by a source outside the portrayal, the likelihood of aggressive performance increases (Lefcourt et al., 1966).

6. *Although there is no evidence that prior repeated exposure to violent portrayals totally immunizes the young viewer against any influence on aggressive performance, exposure to television portrayals may desensitize young persons to responding to violence in their environment.* In one instance, physiologically measured emotional arousal upon viewing violent portrayals was greater for children with less prior exposure to television (Cline, Croft, and Courrier, 1973). In another, children who were exposed to television violence subsequently were far slower to call for adult intervention when children whose play they were monitoring by television became destructive (Drabman and Thomas, 1974). Such findings are not incompatible with the conclusion that television violence can increase the likelihood of aggressive performance any more than callousness is incompatible with meanness, although the first finding does hint (and no more than that, because there is only the solitary finding and the relationship in this particular instance may well be attributable to some difference between light and heavy viewers other than the amount of viewing) that repeated prior exposure to portrayals may reduce somewhat the role of physiological arousal in any impact of new exposure to a violent portrayal.

The evidence has been reviewed in terms of the contribution to aggressive performance of a violent television portrayal. The same evidence can be interpreted in terms of situational factors. Factors in the real-life situation which increase the likelihood of aggressive performance subsequent to viewing a violent portrayal, as one can readily see, are: frustration or anger; similarities between the available target and the target in the portrayal; expected consequences, such as success, failure, pain, or punishment; and, opportunity to perform some act, such as the availability of a weapon, or the presence of a particular kind of target. It would not be unfair to say that to a large degree effects are dependent on situational factors, but it should be emphasized that a situational focus does not make television less central because the situational factors take on importance only because of attributes of television portrayals.

Related Effects: Rule Violation and Self-Harm

So far, we have confined the review to aggressive performance. There is a related kind of behavior, rule violation. The question is often raised about the possible contribution of television to self-harm among children. Self-harm *per se* is difficult to investigate because ethics rule out the direct measurement of such an "effect." Presumably, many of the same factors that increase the likelihood of aggressive performance have the same role in regard to effects on other classes of behavior, including behavior where there is a risk of self-harm. However, the evidence on rule violation bears more explicitly on the question because the common self-harm situation involves the violation of parental or some other party's advice or prohibition.

Two types of rule violation have been studied--the failure to live up to some standard of performance on a task, and the violation of some rule established for a play situation. The findings in regard to both can be summarized in terms of effects on deviant performance subsequent to observing a televised portrayal of deviant behavior by a young viewer.

The scientific evidence suggests that (citations are illustrative, not exhaustive):

1. *Deviation in a portrayal enhances the likelihood of deviant performance* (Wolf and Cheyne, 1972).
2. *The likelihood of deviant performance is increased by a portrayal in which the deviant behavior is rewarded* (Walters and Parke, 1964), *and decreased by a portrayal in which the deviant behavior is punished* (Walters, Leat, and Mezei, 1963).
3. *Inconsistency in a portrayal between verbal advocacy and behavior increases the likelihood of deviant performance* (Allen and Liebert, 1969; Stein and Bryan, 1972).
4. *The behavior in a portrayal is more likely than the verbal advocacy to influence deviant performance* (Allen and Liebert, 1969; Wolf, 1973).

The Irrelevance of Age

Age is always an important variable for young persons because the cognitive, emotional, and physical changes in passing from womb to adulthood are immense. We ignore it here because we are focusing on the characteristics of television portrayals which might contribute to antisocial behavior. Because the young audience for television at any time is at least moderately heterogeneous in age, we are concerned even when the evidence may not clearly apply to some portion of the audience. This is another of those instances when a focus on the implications of science for policy or action leads to a different formulation for reviewing evidence than would purely scientific motives.

Where We Stand Now

There can never be certainty that a specific portrayal will have a specific effect. The evidence is limited to demonstrating that certain attributes of a portrayal and the viewing situation increase the likelihood of an effect. This is the proper interpretation of the various studies which fail to find an effect on aggressive or deviant performance of exposure of young persons to a presumably relevant television portrayal (Sawin, 1974; Milgram and Shotland, 1973; Manning and Taylor, 1975; Feshbach, 1961). They demonstrate that under some conditions there may be no effect. They should not be interpreted as invalidating the many studies which do demonstrate some effect.

When a scientific literature is young, positive versus null results may be taken as cancelling each other out. When a literature has matured to substantial size, which is the case with the literature on television and the performance of aggressive and deviant acts, the situation is quite different. Then, if positive findings have become replicated across numerous, varied studies, a null result--unless, of course, it is interpreted as demonstrating that the entire body of positive findings are attributable to some artifact--ceases to be invalidating and becomes instead a modification of the certainty of effects. That is where we now stand in regard to research on television portrayals and aggressive behavior.

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